



E1052

JACC March 27, 2012

Volume 59, Issue 13



## Heart Failure

### THE CLINICAL SIGNIFICANCE OF ANEMIA AT ADMISSION IN PATIENTS WITH ACUTE HEART FAILURE SYNDROMES

ACC Moderated Poster Contributions  
McCormick Place South, Hall A  
Monday, March 26, 2012, 11:00 a.m.-Noon

Session Title: Heart Failure Complicated by Anemia or Diabetes Mellitus

Abstract Category: 14. Heart Failure: Clinical

Presentation Number: 1230-623

Authors: *Miki Imazu, Hiroyuki Takahama, National Cerebral and Cardiovascular Center, Osaka, Japan*

**Background:** Although anemia in patients with heart failure (HF) has been known as a prognostic factor, the clinical significance of its improvement during hospitalization for HF has not been addressed. We retrospectively studied its relation to prognosis in patients with both acute heart failure syndromes (AHFS) and anemia.

**Methods:** We retrospectively studied consecutive 251 AHFS patients who admitted to our department from 2005 Nov to 2009 Jan.

**Results:** During the mean follow-up term ( $385 \pm 168$  days), cardiovascular events (cardiovascular death or re-hospitalization for HF) were observed in 97 patients. Kaplan-Meier analysis revealed that event-free ratio was lower in patients with anemia (hemoglobin levels  $<13$  g/dl in men,  $<12$  g/dl in women on admission) than those without anemia at admission. Patients with anemia at admission (Anemia group) were characterized with older ( $71.2 \pm 12.8$  to  $62.8 \pm 16.5$  y.o.,  $p < 0.0001$ ) and lower eGFR ( $50.0 \pm 24.6$  to  $60.1 \pm 20.2$  ml/min/1.73m<sup>2</sup>,  $p = 0.0008$ ) compared with those without anemia. In definition of improvement of anemia (an increase in hemoglobin levels  $>1.0$  g/dl at discharge compared with that at admission), 42 patients with anemia fulfilled with this criteria were improved the hemoglobin level at discharge compared with that at admission ( $10.2 \pm 1.6$  to  $12.0 \pm 1.4$  g/dl). However, the improvement of anemia was not significantly related to the occurrence of cardiovascular events in Anemia group ( $n = 136$ ; odds ratio 1.65, 95% CI 0.79-3.46,  $p = 0.18$ ).

**Conclusions:** Although the severity of anemia at admission was a powerful prognostic factor, the degree of improvement of the hemoglobin level during hospitalization for HF was not related to the prognosis in patients with HF. Multiple factors resulting to the occurrence of anemia have the clinical significance in patients with HF, not the improvement of anemia per se.